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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/680,535	10/07/2003	Donald E. Mabe JR.	ATTD-1001USDIV	5006

7590 02/07/2006

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ART UNIT	**PAPER NUMBER**
3711	

DATE MAILED: 02/07/2006

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BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Application Number: 10/680,535
Filing Date: October 07, 2003
Appellant(s): MABE ET AL.

Kevin J. Dunleavy
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 18 November 2005 appealing from the Office action mailed 16 May 2005.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

298,111	MORSE	5-1884
1,324,789	BEY	12-1919

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claims 15-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Morse (298,111) in view of Bey (1,324,789).

Regarding claim 15, Morse shows a billiard cue having a proximal portion (the butt end - section A) and a distal portion (the tip end – sections C, D and E or alternatively sections B, C, D and E or any combination thereof), said cue comprising: a grip portion (the handle section A) located on the proximal potion (section A) of said cue; a tip (G) suitable for striking a billiard ball located on a distal end (E) of said distal portion of said cue, and wherein said distal portion (sections C, D and E) comprises up to half of the length of said billiard cue (best seen in figure 1; the length is less than half the length of the billiard cue). Morse additionally, shows that weights (hh) can be added or removed from the pockets (the cylindrical openings positioned at the joints between the sections). The weights can be light or heavy and added as deemed necessary to meet the requirements of the individual user (see page 1, column 2, lines 71-96; also figures 3 and 6). Morse shows the user would grip the handle portion of the cue in order to be able to hold the cue. Therefore, the handle portion is considered the grip portion. Morse does not disclose expressly the use of a slidable grip on the handle portion (A). Bey shows a cue, wherein the cue has a movable grip (13) that moves relative to the cue. The grip is provided in order to enable more accurate shooting and to assist in drawing the cue ball. In view of Bey it would have been obvious to include a movable grip on the distal portion of Morse's billiard cue, the motivation being to enable more accurate shooting and to assist in drawing the cue ball.

It is noted that irrespective of the length of the Morse cue, an imaginary line can be drawing at the mid-section of the cue. Half the length would be designated the distal end, while the other half would be designated the proximal end. There is no requirement that the cue be divided in a particular manner.

Regarding claims 16-18, Morse shows the billiard cue is made of two or more sections (A, B, C, D and E). Morse does not disclose expressly the amount of variation in the diameter between the sections. At the time the invention was made, it would have been an obvious matter of design choice to a person of ordinary skill in the art to varying the diameter of the billiard cue to meet the claimed amounts, because Applicant has not disclosed that varying the diameter to meet the specified amounts, provides an advantage, is used for a particular purpose, or solves a stated problem. One of ordinary skill in the art, furthermore, would have expected Applicant's invention to perform equally well with either the diameter as taught by Morse or the claimed diameters because both diameters perform the same function of allowing a player to strike a billiard ball. Therefore, it would have been an obvious matter of design choice to modify Morse to obtain the invention as specified in claims 16-18.

Regarding claim 19, Morse shows the distal portion (combination of sections C, D and E) of said billiard cue comprises less than 50% of the total length of said billiard cue. Morse shows that weights (hh) can be added to the pockets within the cylindrical openings positioned at the joint of the sections; the weights can be light or heavy and added as deemed necessary to meet the requirements of the individual user (see page 1, column 2, lines 71-96; also figures 3 and 6), and the proximal portion (section A) comprises the remaining length of the billiard cue (see figure 1). As indicated above, there is no requirement that the cue be divided in a particular

manner. Therefore, one can readily assume the distal portion to be any desired percentage of the overall length.

Regarding claim 20, Morse shows the distal portion (sections C, D and E) of the billiard cue has a weight, which is about 60-80% of the total weight of the billiard cue. Note the rejection of claim 19. Morse teaches that heavy weights may be used and the remainder of the space can be filled with the lightweights and the screw-plugs. The weight can be varied to meet any desired requirement. It is noted that the cue structure of Morse, is capable of holding and distributing the weights in any desired combination.

Regarding claim 21, Morse further shows the billiard cue comprises two or more section (A, B, C, D and E) which are releasably attachable (threaded screws f and cylindrical nuts g) to one another, and at least one of the sections (E) is located in said distal portion of said cue and has a substantially greater density (as indicated in claims 19 and 20, the weights can be adjusted to suit the individual need) than the other sections (see page 1, column 2, lines 71-96).

Regarding claim 22, Morse shows one of said sections form the entire distal portion of said cue (see page 1, column 1, lines 12-18). Morse teaches that the pool cue/cane can be made in two or more sections. The more sections the more compact the assembly. As indicated in claim 15, the proximal and distal portions can be configured in any desired manner. one could consider just section E as the distal portion, E through C, or the combination of sections B through E as the distal portion. The same can be applied to the proximal portion.

Regarding claim 23, Morse shows the tip (G) is releasably attachable (the tip can be unscrewed; it should be noted that everything is considered releasably attachable) to the distal end (E) of said cue (see page 2, column 1, lines 49-54). In the instant case, the tip is screwed to

the distal end of section (E). As it is well known, screws are commonly capable of being unscrewed. It is noted that the claim does not claim a particular method of releasably attaching the tip to the distal end.

Regarding claim 24, Morse shows the tip (G) comprises a surface for striking a billiard ball, and an elastomeric material (the broadest reasonable interpretation of elastomeric would include elastic cue tip G) attached to said surface, said elastomeric material being sized to fit snugly over the distal end of said billiard cue to releasably secure said tip to the distal end of said billiard cue (see figures 8, 11-13).

Regarding claims 25 and 26, Morse shows the tip can be formed from an elastic material such as leather or similar material and it is provided with a bearing-plate. Morse does not disclose expressly the specific material(s) that can be used to form the tip. At the time the invention was made, it would have been an obvious matter of design choice to a person of ordinary skill in the art to use a tip made from neoprene or liquid steel, because Applicant has not disclosed that using a liquid steel tip or a neoprene tip, provides an advantage, is used for a particular purpose, or solves a stated problem. One of ordinary skill in the art, furthermore, would have expected Applicant's invention to perform equally well with either the tip taught by Morse or the claimed tip(s) because both tips perform the same function of striking a billiard ball. Therefore, it would have been an obvious matter of design choice to modify Morse to obtain the invention as specified in claims 25 and 26.

Regarding claim 27, Morse as modified in view of Bey shows said grip (13) comprises a tubular elastomeric material, which can be stretched and slipped over the proximal end of the proximal portion of said cue (page 1, column 1, lines 51-56; column 2, lines 57-59).

(10) Response to Argument

With regards to appellant's assertions that nowhere in Morse are the dimensions of the cue or cue sections disclosed. As appellant may be aware the length of a standard cue stick varies between 51" to 58". However, the minimum length should not be less than 36". The weight of a standard cue stick varies between 18 to 21 ounces and the length of a traditional cue is customarily tapered. One of ordinary skilled in the art would know these dimensions. Morse does not need to disclose a specific dimension for the cue. Furthermore, whether the drawings are to scale or not is moot. There is no requirement for the claimed pool cue to be of a particular length. Claim 1 as presented merely states that the distal portion comprises up to half of the length of the billiard cue. The claim says up to half. Therefore, it can be any length from 0 to half.

It is noted that claim 1 as presented does not require the cue stick to be formed in a plurality of sections. The claimed cue stick can be formed in one-piece. One can arbitrarily designate any portion of the total length of the cue stick as the distal portion and the remainder of the length as the proximal portion. Appellant has not set forth any particular method or guideline as to how or why one would or would not for that matter, consider a designated portion as the proximal portion and the remainder of the portion as the distal portion. Therefore, to state that "Figure 1 of Morse cannot be relied on to support the Examiner's position, that section B of the cue of Morse is part of the distal portion of the cue of Morse, as distal portion is defined in claim 15 of the present application." is unfounded. The appellant appears to argue that one of ordinary skill in the art would have been lead away from employing Morse's cue structure to increase or decrease the weight of the cue or to derive at the conclusion that indeed the cue stick has a distal

portion and a proximal portion. This argument, however, is not persuasive since it is speculative and is not supported by any objective evidence.

Furthermore, it appears that appellant is arguing features that are not claimed in claim 15. As indicated above appellant has merely recited in the preamble of claim 15 that a billiard cue has a proximal portion and a distal portion. In the body of the claim appellant again merely recites that the distal portion comprises up to half of the length of the billiard cue. The Morse Patent shows a cue stick, the cue stick can be formed of two or more sections. Again for cue sticks of Morse, one can arbitrarily designate up to half of the stick as the distal portion and the remainder of the stick as the proximal portion. Traditionally, cue stick, which is formed of two pieces and have an overall length of 58", the collar is placed midpoint, meaning at 29". Therefore, the upper half is designated the proximal portion, while the lower half is designated as the distal portion or visa versa.

With regards to appellant's assertion that Morse does not teach weights that can be adjusted to suit the individual need. It appears that appellant may be looking for the exact wording in the Morse patent, when in fact the Examiner was paraphrasing in the Final Office Action. The Morse patent teaches "It is often desirable to change the balance of the billiard-cue and to increase or decrease its weight." and "It will be seen that any desired number of the heavy weights *h* may be used, the remainder of the space being filled with the light weights *i* and the screw-plugs *k* ...". Surely appellant can see that when the Morse patent refers to "often desirable to change" and "any desired number" it means that the weights can be varied as desired, and since an end user will be using the Morse cue, the end user will be varying the weights as he/she deems suitable for his/her intended use.

The Morse cue stick is provided with interior pockets along its length. As indicated above, Morse teaches, "it is often desirable to change the balance of the billiard-cue and to increase or decrease its weight". Morse may not explicitly teach how the weights should be distributed along the length of the cue, but Morse understands that it is desirable to alter the balance, feel and weight of the cue. The structure of the Morse cue is capable of holding weights along its length. The end-user can choose to distribute the weight in any suitable manner, depending on its intended purpose and the desired end result.

As indicated above, Morse teaches any combination of weight can be used. Therefore, one may choose not to include weight in the proximal portion (part A), meaning the proximal portion would be filled with the screw-plugs (*k*). The lightweights (*i*) can be positioned in the center section and the heavy weights (*h*) positioned in the distal portion of the cue.

As appellant may well be aware, commonly, the tip portion of the cue is referred to as the proximal end while the butt portion of the cue is referred to as the distal end. Appellant has chosen to refer to the above two elements in reverse. Furthermore, appellant has chosen to subdivide the cue stick into two halves or sections, designating the first half as the proximal portion, and the second half as the distal portion. As indicated above, the same approach maybe applied towards any cue stick including the cue stick of Morse. There is nothing preventing one from subdividing a cue stick into two halves, a distal half and a proximal half. The drawings do not have to be "to scale" as appellant appears to be asserting, for one to understand that a cue stick can have two sections, for that matter, any number of sections.

With regards to appellant's assertion that the Morse reference does not explicitly teach the 10%, 5% or 2% variation over the length of the cue. It is common knowledge that a

billiard/pool cue is formed with one of two styles of taper. In an "American" taper, the cue has a constant diameter of approximately 0.5 inches for approximately the first twelve inches from the tip end, this being the longest bridge length commonly used in play. The other common type of taper is a so-called "European taper". In this style of cue, the cue has a truncated cone shape along its entire length tapering to a tip size of approximately 0.35 to 0.45 inches.

By way of example consider the following: a conventional 58" cue stick formed of two sections and coupled at mid section i.e. at 29", having a standard tip of 13mm (.515") and a butt portion of about 31.75mm (1.25"). Customarily the cue stick will have two tapers along its full length. The first taper starting from the tip (.515") and ending below the midpoint (.520"). At most the tapering varies 0.5 degrees. The second taper is from above the midpoint (.825") to the butt end (1.25"). Again at most the tapering varies about 2.5 to 3 degrees.

Contrary to appellant's assertions, the Specification as filed discloses that "the cue may have a substantially uniform diameter from one end of the cue to the other, rather than being tapered, as is the case with most conventional cues." The Specification defines what is meant by "substantially uniform"; "By substantially uniform it is meant that over most of the length of the cue the diameter of the cue remains substantially the same allowing for up to a 10% variation in diameter. More preferably, the cue has only up to a 5% variation in diameter and most preferably the variation in diameter is less than about 2%. The substantially uniform diameter facilitates the maintenance of a substantially constant geometric angle throughout the stroke of the ball." As can be seen, the Specification sets forth the meaning of "substantially uniform". Therefore, over most of the length, but not all the length the cue has a uniform diameter. Such is inherently demonstrated by most conventional cue sticks. Most if not all-conventional cues have a uniform

diameter about half their length, the variation in the tapering along this length is about 1%. Which is less than the claimed variations. No two cue manufacturing companies taper their cues the same. The dimensions of each cue i.e. length, tip diameter, butt diameter, weight and feel, can be altered to suit the needs of the intended user. Therefore, altering the dimensions of a cue stick is considered an obvious matter of design choice.

With regards to appellant's assertion that Morse does not show the tip being releasably attached to the distal end. Contrary to what appellant appears to be asserting, Morse shows the tip (G) is releasably attachable to the distal end (E) of the cue (see page 2, column 1, lines 49-54). The tip is screwed to the distal end of section (E). As appellant may be aware, screws are commonly unscrewed. Therefore, in the instant case, allowing the tip to be releasably attached to the distal end. It is noted that the claim as presented does not claim a particular method of releasably attaching the tip to the distal end i.e. quick-release type attachments. Furthermore, appellant has not invoked the 112 6th paragraph. Therefore, any means can be used to attach the tip to the distal end.

With regards to appellant's assertion that Morse does not show an elastomeric tip. Morse shows the tip is formed of an elastic material i.e. leather or similar material. It is generally understood when referring to an elastic material, that the material is capable of recovering quickly, it is capable of being easily stretched or expanded and it resumes its shape. It is also generally understood when referring to an elastomeric material that the material is any of various elastic substances resembling rubber.

With regards to appellant's assertion that neither Morse nor Bey disclose a variation in the diameter of the cue of up to 10%, 5% or 2%. As indicated in the Final Office Action, the Bey

reference was used to show that it is well know to provide a slidable sleeve or grip on cue sticks. The Bey reference has not been used to demonstrate the percent variation in the diameter of the cue stick.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

Mitra Aryanpour

MITRA ARYANPOUR
PRIMARY EXAMINER

Conferees:

Gene Kim

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02 February 2006